CANTERBURY DISTRICT HEALTH BOARD QUALITY IMPROVEMENT AND INNOVATION AWARDS

Project Summaries for 2009 Entries

Quality and Patient Safety Council

Canterbury District Health Board
Te Poari Hauora ō Waitaha

TABLE OF CONTENTS

INTRODUCTION

The Canterbury DHB Quality Improvement and Innovation Awards are sponsored by the Canterbury DHB Quality and Patient Safety Council. This Council was established in 2002 to promote quality improvement within the DHB, thereby ensuring the provision of safe, patient centred, evidence based, systems minded, sustainable health care to the population served by the Canterbury DHB. The Council also promotes the sharing of information and establishment of best practice across the Canterbury DHB. The Council's membership includes representatives from the Canterbury DHB operating division and community based services.

The awards programme was first introduced in 2003 and is designed to recognise, publicly acknowledge and share the excellent quality improvement and innovation initiatives generated by Canterbury DHB staff and by community based services.

A number of past entries in the awards programme have also gone on to enjoy success in national award programmes. We hope those with current entries will consider entering their projects in external quality awards programmes. The Corporate Quality & Risk team can be contacted for information on external awards programmes and they are happy to give assistance and support through the entry processes.

The 2009 awards programme is comprised of 3 categories; Community Based Service, Hospital & Specialist Service and Systems Improvement. A total of 15 projects were received and the categories for each project were confirmed as part of the assessment process.

Congratulations to all those who took part. It is great to be able to recognise, publicly acknowledge and share these valuable quality and innovation initiatives. We hope you have found this a valuable process and we encourage you to submit further projects into future awards programmes.

We would also like to take this opportunity to encourage you to provide us with feedback on the process so we can continue to enhance the programme in the future.

This booklet has been produced by the Corporate Quality and Risk team to provide you with a brief overview of the project entries. Please refer to the Canterbury DHB Corporate Quality and Risk intranet or internet site for further information:

http://intraweb.cdhb.local/corp-quality/promoting/quality_and_innovation_awards.htm

http://www.cdhb.govt.nz/quality/patient-safety/awards.htm

2009 COMMUNITY BASED SERVICE ENTRIES

Clinical Resource Manual: Orange Book

Community Dental Service

The Canterbury District Health Board Community Dental Service (CDS) has a staff of 112 and cover the geographical area from Kaikoura in the north to the Rangitata River in the south. The service treats children from one year of age to children who are in year 8 and are approximately 13 years of age. The CDS currently has 61 dental therapists who are supported in their clinics by a dental assistant treating 76,000 children.

Changes in treatment approach and the introduction of modern equipment and materials has greatly improved the dental therapists' ability to treat a range of problems. Increased medical knowledge and diagnosis of other conditions has also influenced practice over time.

The CDS is committed to ensuring service delivery accurately reflects the latest best practice guidelines and as a consequence has regularly issued and distributed treatment updates which defined standards on a wide variety of treatment processes. These updates were issued over the years in written form due to the large geographical spread of the service and subsequently a large collection of paper accumulated. The updates were held in folders in every school dental clinic and new updates were added as appropriate. Information was filed in chronological order which made retrieval of specific information difficult, time consuming and the document control process highly complex overall. This resulted in a high volume of out-of-date, duplicate and obsolete documentation held over the wide geographical service area.

With these issues in mind and in line with the principles of 'lean thinking' a team within the service collated, reviewed, updated and published a succinct and comprehensive booklet that consolidated all relevant clinical information for dental therapists. The 'Orange Book' is readily available throughout the service and is able to be easily reviewed in a controlled and consistent manner again in the future as further changes in treatment regimes arise. This ensures that best practice evidence-based approaches are continuously available for staff and supports a standardised approach to dental care.

A comprehensive evaluation was conducted after dental therapists had accessed the Orange Book over a 10-week school term. Overall it was identified that the CDS has been successful in creating a resource which has gathered all of the most relevant clinical guidelines for dental therapists in one volume. Dental therapists found it to be a beneficial asset to their practice as it enabled them to access up-to-date, best practice guidelines which supports a more consistent practice throughout the service.

The team are currently pursuing the possibility of circulating an electronic version of the Orange Book also which can be accessed thorough the area.

Contact Person: Megan Gibbs, Service Manager, Community Dental Service

Y BIC in the Waimak: The Rural Canterbury PHO Youth Brief Intervention Coordination (YBIC) Service

Rural Canterbury PHO

Following the establishment of the highly successful Rural PHO Adult Brief Intervention Coordination Service, a Youth Brief Intervention Coordination (YBIC) Service was created at the beginning of 2008. This service offers up to five sessions of free psychological intervention in the local community and onward referral to identified and relevant community agencies for Waimakariri youths aged between 13-18 years with mild to moderate mental health concerns and their families / whanau. The YBIC service receives referrals from the from Waimakariri general practice teams, public health nurses and nurses attached to the Rangiora and Kaiapoi high schools. The Waimakariri district incorporates towns such as; Kaiapoi, Woodend, Rangiora and Oxford and has 29 registered GPs with an enrolled youth population (aged between 13-18 years) of 3422.

In order to evaluate the effectiveness and benefit of the YBIC service during the first 17 months of operation (January 2008 to May 2009), a variety of measures were captured and reviewed. Efficiencies of the service were measured through reviewing wait times to ascertain whether the young people referred were seen within one month of their GP's referral. The young people's clinical outcomes were also measured using clinician-rated scores completed pre and post YBIC intervention and service satisfaction surveys were also completed by youths receiving intervention. In addition, eight Waimakariri GPs were randomly selected to take part in the YBIC GP satisfaction survey. Both surveys included questions regarding access to the service and quality of care. Results were analysed to assess the overall satisfaction with the service delivery. YBIC Service connections to community agencies were also reviewed.

Results from this service review indicate that there is a high referral rate and service demand and that the young people of Waimakariri were contacted within one working month of their referral. Clinical outcome scores at the end of the YBIC sessions were lower for both males and females and two thirds of all the young people had made significant clinical improvements. The sessions were most helpful for the young people as they offered them; more strategies for, more confidence and ability in, more understanding of and more insight into dealing with their problem(s). The young people liked the YBIC's personal style and skills and problem solving approach. The eight GPs surveyed were satisfied with the YBIC Service, collectively rating it very highly. They particularly endorsed the; accessibility, free sessions, service offered locally, good feedback, competent and clinical staff and the prompt and quick uptake. They found the feedback useful and specific but could be delivered quicker. They were very interested in having electronic referrals to the service. All parties wanted the YBIC Service to be continued. The YBIC Service community and referral profile indicated that CAFLink (Screening and allocation team for Child, Adolescent and Family Mental Health, CDHB Specialist Mental Health Services), Presbyterian Support Services and the Alcohol and Drug team were the most likely services for YBIC young people to be referred on to.

YBIC Service improvements include more appreciation and use of the HoNOSCA clinical outcome measure, which could be adapted for young people to complete themselves to further verify the outcome results. Electronic referrals could be set up for GPs and more sessions for young people in most need could be looked at. Finally, annual satisfaction surveys for young people and GPs will continue to assist with ongoing service evaluation and the identification of opportunities for quality improvements.

Contact Person: Paul Wynands, Mental Health Manager and Consultant Clinical Psychologist, Rural Canterbury PHO

Community Stroke Rehabilitation Service: Service Rollout

Community Stroke Rehabilitation Service, The Princess Margaret Hospital

Internationally, there has been a consistent move towards greater community based (largely home based) health service delivery. Home based stroke rehabilitation has the benefits of community integration, participation, appropriate context and greater sense of control for clients. This form of rehabilitation also encourages client autonomy and their 'significant other(s)' can also participate. Tasks done at home are in their usual familiar setting, are relevant to the client and so are easily practiced throughout the day. Home is also where the client feels most comfortable, thereby enabling them to feel more relaxed and able to participate, rather than feeling tired and stressed from the travel into hospital. Most importantly, there is better integration of 'rehabilitation' into routine daily work and leisure activities. Incorporating activities, such as walking to the local mall, or getting the bus, or attending community based social groups, into the rehabilitation programme facilitates better integration into the community.

The Community Stroke Rehabilitation Service (CSRS) was developed and fully implemented following the success of the pilot project run from March 2006 – May 2008. This pilot project demonstrated both the significant benefits and feasibility of a community based service for clients following stroke by comparing a pilot (smaller scale) of the CSRS concept with a previous control group of clients who had received rehabilitation at a day hospital. The pilot group took referrals from the Stroke Rehabilitation Unit only and saw clients located within the Christchurch city limits.

This new project centres on the rollout of this service and aimed to provide community-based stroke specific rehabilitation to all over 65 year olds presenting with stroke as their primary issue, located within the greater Christchurch area and ensure the CSRS was as effective as the smaller pilot group outcomes.

An analysis of the fully implemented service has revealed that the established CSRS has successfully seen all stroke clients over the age of 65 years in the greater Christchurch area with rehabilitation potential. The CSRS has been able to maintain a comparable level and length of staff input experienced during the pilot study whilst lowering overall wait times for treatment. A review of CSRS data also demonstrates that the full CSRS has been able to provide rehabilitation that is at least as favourable, in terms of client outcomes, as the pilot CSRS and previous day hospital.

There were no clinical barriers during the rollout process and the team feel that a holistic, client centred Inter-disciplinary Team (IDT) philosophy has been maintained despite a much larger team and greater client numbers. This IDT approach allows a seamless delivery of care for clients by improving staff communication, promoting flexibility and striving for common rehabilitation goals.

These results show that a larger stroke specific, home based rehabilitation service has been successful in the greater Christchurch area. The CSRS has maintained its timeliness, productivity, and effectiveness whilst continuing to adopt a holistic approach with an expanded sized service.

Contact Person: Emily Redhead, Physiotherapist, Community Stroke Rehabilitation Service, The Princess Margaret Hospital

"Introduction to Insulin" Classes: Flexible Approach to Insulin Initiation

Diabetes Centre, Christchurch Hospital

Traditionally, the self management tasks required by Type-2 diabetic patients needing to move onto insulin injections are taught by diabetes educators on a one-on-one basis. This traditional form of education is very resource intensive, reducing the amount of time that diabetes educators can spend on other patients. The number of type 2 patients requiring insulin is increasing rapidly, in part because of the diabetes epidemic. The Diabetes Team recognised that one-on-one education was unsustainable and that an alternative treatment and education model was required. Group education was proposed as an alternative model but there were very few overseas examples of sustainable group classes that were relevant to the New Zealand setting.

Following a comprehensive literature review, consultation period and piloting of classes, the Christchurch Diabetes Centre's team of educators developed a new model called "Introduction to Insulin". The 'point of difference' compared to overseas models, was a course that allowed both insulin naïve patients and patients who had only just commenced on insulin, to take part. Patients who are feeling confident with insulin can therefore help those that have yet to start on injections. The classes are divided into three weekly sessions of two hours each, for patients and their partners. Up to twelve patients have been educated at a time.

The course is facilitated by a Diabetes Nurse Specialist and a Specialist Diabetes Dietitian. It is held in an informal setting using hand-on demonstrations, PowerPoint presentations, patient discussion and quiz education techniques. The course covers a wide variety of Type-2 diabetes related topics including; injection technique, hypoglycaemia, interpretation of self-monitored blood glucose readings, storage of insulin and safe sharps disposal, dietary guidance involving food label interpretation and advice on dining out as well as sick-day management and impacts on travel. All course participants are given packs which contain all of the information covered in class, thereby allowing them to make notes during the sessions and take the information home to refer to and discuss with their families and friends.

A prospective audit of the first 50 patients participating in the "Introduction to Insulin" classes revealed that classes were as effective for patients and staff as traditional one-on-one patient education. The feedback also revealed that patients' gained support from discussing their diabetes with people with the same condition during the classes and provided a more efficient method of educating patients commencing insulin for staff. Therefore as a result of these identified benefits for both patients and staff the course has been introduced permanently into the Diabetes Service.

The course continues to be adapted following participant and staff feedback. The number of referrals to classes has increased as a result of heightened awareness amongst General Practitioners in the community. The classes are currently held every 2 months but classes will be held more frequently in the future, as the number of referrals increases.

Contact Person: Marion Greenslade, Diabetes Nurse Specialist, Diabetes Centre, Christchurch Hospital

The Active Life Programme

Activelinks Service, Comcare Charitable Trust

There is a growing body of literature which highlights that people who experience mental illness have poorer physical health than the general population (Sebastian and Beer, 2007, Harris and Barraclough, 1998). International research suggests mental health consumers die at 2.5 times the rate (Lawrence et al., 2001), and up to 10-15 years earlier than the general population (Farnam et al., 1999) not from their mental illness, but from related physical health issues e.g. heart disease deaths, influenza, diabetes and cancers. It is important for people with experience of mental illness to participate in physical activity and eat healthy foods to offset some of the more debilitating elements of their illness including weight gain (Allison et al, 1999), depression, lack of motivation, reduced energy, feeling stigmatised and misunderstodd along with the negative side effects of psychiatric medication (Brown et al., 1999). Therefore the physical health needs of people with experience of mental illness are very important and can often be overlooked by mental health services and workers.

Comcare Charitable Trust developed and facilitated the Active Life programme for people with experience of mental illness in two urban and two rural Canterbury settings in 2008 after they received one off special funding from the Canterbury District Health Board. The programme was designed to support people with experience of mental illness to make healthier lifestyle choices related to nutrition and physical activity. The programme consisted of an hour of physical fitness which included activities such as walks and circuit and spin classes and then an education session. The education sessions had weekly topics which included; healthy eating, nutrition label reading, a supermarket tour and self esteem and guest speakers were often invited to cover specialist topics also. These sessions were combined with a shared healthy lunch and each programme ran for 16-18 weeks.

The Active Life programme aims to contribute to reducing inequalities and removing barriers to health gains for people with experience of mental illness. The programme aims to support this client group to improve their physical health, nutrition, physical activity, mental health and wellbeing.

The purpose of the evaluation of the Active Life programme was to determine its overall effectiveness in improving lifestyle choices including nutrition and physical activity as well as the physical and mental health of participants.

The results of the evaluation of the Active Life programme identified that participants have benefitted greatly and have achieved physical health advantages such becoming more active and achieving weight losses, improvements in body measurement and blood pressure readings and fitness gains for over half the participants. The evaluation also revealed mental health gains around increased self esteem and fewer psychological symptoms for over half the participants. As a result of the programme, course participants also displayed evidence of making positive lifestyle choices particularly around nutrition and healthy eating by eating more vegetables and fruit, drinking water, eating healthy breakfasts and reading food labels. These benefits were sustained four months after the programme was completed, particularly in the rural settings. The impact of the programme has been extremely positive and was highly regarded and valued by all participants involved in the programme.

The Active Life programme has been an overwhelming success with the majority of participants making substantial weight losses and continuing to have a healthier lifestyle than before they started the programme. Comcare Charitable trust has recently received another one off funding contract from the Canterbury District Health Board which will allow an additional four groups to become involved in the Active Life programme in the future.

Contact Person: James Frost, Activelinks, Comcare Charitable Trust

2009 HOSPITAL & SPECIALIST SERVICE ENTRIES

The Advanced Trauma Simulation Course: "Training the Team"

Christchurch Hospital Trauma Committee, Christchurch Hospital

The one-day Advanced Trauma Simulation Course (ATSC) was developed by the Christchurch Hospital Trauma Committee with the aim to improve performance during "Trauma Calls", the initial management of the severely injured patient, through communication, teamwork and leadership. Unlike conventional Trauma Courses such as 'Early Management of Severe Trauma' (EMST) and 'Advanced Trauma Life Support' (ATLS), which promote a systematic approach to trauma management and develop individual clinical competencies, the Trauma Committee recognised that a complementary course was needed which focuses on communication, teamwork and leadership with an emphasis on local needs.

Efficient and effective teamwork is an essential component for high-quality safe patient care. Poor teamwork and breakdown in communication are among the key factors in poor patient outcome. A team of experts with excellent individual clinical skills does not guarantee an effective team, but teamwork behaviour and skills are teachable. By teaching trauma as a multi-disciplinary team approach, the objectives of the Course are to improve Trauma education, the efficiency of "Trauma Calls" and the functioning of the "Trauma Team" locally.

The first ATSC was held in June 2009. The course replicated real-life "Trauma Calls" through the use of Patient Simulators with realistic anatomy, clinical functionality and high-fidelity patient monitoring software. External sponsorship was sought and the department were loaned high-fidelity software to upgrade currently held Simulators for the training session.

The Course was aimed at Registrars from specialities involved in trauma management (Emergency Medicine, ICU, Anaesthesia and General Surgery). Nursing Staff from the Emergency Department, Anaesthetic Technicians, a Social Worker and Radiographers also participated in the course, thereby creating a multi-disciplinary team approach. This added to the realism of the scenario and also promoted Trauma education to a wider group of staff.

The ATSC commenced with an introductory lecture on team behaviour, communication and leadership; a team-building game "Build-a-Bridge"; a lecture on personality and self-awareness and then moved onto Trauma scenarios throughout the day. The multi-disciplinary teams undertook three pre-programmed scenarios within their normal clinical environment in the Emergency Department at Christchurch Hospital and participants represented their usual roles. The simulations were filmed and a Faculty of Specialists used the recorded material to illustrate the team dynamics when de-briefing to course participants. The recordings also enabled participants to observe and reflect on their performance within a supportive peer setting.

The teams were assessed by the Faculty of Specialists using checklists, based on their communication within the team, designation of team roles and responsibility, leadership and situational awareness. Interaction with senior members of staff; the Operating Theatre; Blood Bank; the Radiology Department and with distressed relatives, was also assessed with the use of role-play.

A comparison of pre and post-course participant questionnaires, in addition to feedback from the observing Faculty of Specialists revealed that the course had been highly successful, with overall feedback being extremely positive. Simulation-based training is realistic and effective at allowing the practice of teamwork, leadership and communication skills. The Advanced Trauma Simulation Course has highlighted that simulation training is a new and exciting training modality and fundamental to improving team dynamics. It is hoped that with the development of the ATSC, team dynamics will improve at a local level and subsequently improve outcomes for trauma patients overall.

Contact Person: Amanda Holgate, ED Consultant/Chair Christchurch Hospital Trauma Committee, Emergency Department, Christchurch Hospital

Improving Communication for People with Parkinson's Disease: Implementing the LSVT Programme

Riley Community Rehabilitation Service, The Princess Margaret Hospital

Parkinson's Disease (PD) is a progressive neurological condition affecting movements such as walking, talking, swallowing and writing. PD is one of the most common chronic neurogenic disorders and according to the Neurological Foundation of New Zealand, there are an estimated 10,000 people with PD at any time in New Zealand, and 400 new cases every year.

PD is a degenerative disease and over time erodes a person's independence, self esteem and quality of life. A person with PD tends to have a soft, monotone voice, slurred/mumbled speech and a hoarse, breathy voice. These characteristics lead to speech that is difficult to understand and hear and typically people with PD have difficulty contributing when in a group of people and often rely on others to speak for them. In addition, spouses of people with PD report their partners talk less and are reluctant to start conversations. This combination of factors adversely affects a person's social, economic and psychological wellbeing as they are often forced to give up activities they enjoy.

Following research into improved speech treatment options for people with PD, Speech Language Therapists (SLT) at the Riley Community Rehabilitation Service became aware of the internationally acclaimed Lee Silverman Voice Treatment (LSVT) programme. A change in service delivery within the Riley Community Rehabilitation Service provided the opportunity to develop a specialist speech language therapy clinic for people with PD and this was adopted by the service.

The LSVT programme targets a person's speech volume and there are continuous verbal and visual prompts to 'Think Loud' during the sessions. Patients are required to complete a range of vocal, conversational and reading tasks during clinic sessions including practising common sayings that are relevant to their home life. They are encouraged to continue with their voice and speech exercises at home. The LSVT programme collects a range of robust clinical and non-clinical outcomes which include acoustic measurements of voice, such as volume and pitch, in addition to feedback gathered from patient and carer evaluation forms.

The results gathered replicate LSVT's international clinical success with statistically significant outcomes such as sustainable increases in patients' volume and speech clarity. Patient and carer feedback identify functional, physiological and emotional improvements. Overall the results reflect a marked improvement in patients' confidence and ability to communicate with others, and subsequently has increased their independence and quality of life.

The project's future directions include developing the original clinic and a group maintenance clinic to maximise outcomes; continuation of a complementary group therapy clinic borne from the project review; progressing technology through the use of web links between the therapist and patient, and potentially developing an interdisciplinary care pathway for people with PD within the Canterbury District Health Board.

Contact Person: Elizabeth Gibson, Speech Language Therapist, Riley Community Rehabilitation Service, The Princess Margaret Hospital

Development of a Clinical Pathway for Patients with Cellulitis

Department of Infectious Diseases, Christchurch Hospital

Cellulitis a soft tissue infection of the skin and underlying tissues generally requires three to seven days of intravenous (IV) antibiotic treatment via short term IV access. A study conducted in conjunction with the team within the Department of Infectious Diseases revealed that patients identified as low risk on admission with cellulitis could be safely managed at home.

Following the appointment of additional nursing staff to the department to support this new initiative the pathway and patient screening tool were developed and implemented. Patients admitted to Christchurch Hospital under General Medical Consultant Care with a diagnosis of cellulitis are screened for suitability to enter the pathway by the Infectious Disease Nursing Team. Patients that meet the screening criteria are educated about the service and connected to a continuous antibiotic infusion system via suitably sited IV access for short term antibiotic therapy in an outpatient setting under specialist supervision. Patients are then asked to return to the Medical Day Unit daily for pump changes. If concerns are identified during the treatment the nursing team is able to contact the Infectious Diseases Registrar or Consultant for support, a pivotal factor for providing safe and quality care. Re-cannulation and wound care are also provided at these appointments with a depth of nursing knowledge capable of complex wound management.

Patients deemed suitable for the cellultis pathway must be mobile, have well managed pain and home support available. Although the screening tool is utilised by the nurses employed for this role, their advanced clinical skills and experience specific to community and outpatient areas supports their decision to safely recruit patients as demonstrated by very low readmission rates. Patients must also be able to acknowledge complications should they arise and following education have insight to manage them.

An information booklet was developed for patients entering the pathway and contains information such as; expectations of their condition, IV access and infusion system management, expectations of function, pain management advice, service contact information and advice on parking and location of outpatient services.

To determine the success of this pathway, the length of inpatient stay, readmission, line infection and patient satisfaction have been measured. These measurements demonstrated that length of stay has been reduced, readmission numbers were low, intravenous line phlebitis and infection rates were very low, and patient satisfaction was very high overall. As well as providing a safe and therapeutic service, the pathway also empowers patients and thereby translates into improved outcomes for the individuals concerned. In addition there was ready acceptance by senior medical and nursing staff, improved knowledge of cellulitis among staff and breaking down of traditional barriers to integrated service provision.

The department continue to audit outcomes and survey patients and one of the main focuses of the team now is to share the outcomes of this project with other providers both internally and externally in the hope of benefiting other patients.

Contact Person: Sue Teague, Service Manager, Department of Infectious Diseases, Christchurch Hospital

The Power of Occupation: Adventure Based Learning within Forensic Mental Health

Te Whare Mauriora, Hillmorton Hospital

Te Whare Mauriora is a 13 bed unit which provides mid to long term rehabilitation for forensic patients. It is the only open forensic unit within New Zealand and aims to provide patients with an essential transition from a secure environment back into the community. Treatment is provided by a full multi-disciplinary team in collaboration with the patient and encompasses a range of domains including; risk, psychiatric, occupational, social and physical health.

There are a range of mental health conditions experienced by the patients at Te Whare Mauriora, with schizophrenia being the most dominant. Schizophrenia can be an extremely debilitating illness, with significant effects across a person's life as if often affects employment, relationships, interactions with family/whanau and overall health and wellbeing. Patients suffering from schizophrenia may also have hallucinations and delusions which challenges their social skills and confidence.

Through weekly clinical meetings it was identified that conversing with family/whanau and peers was a considerable challenge for many patients as for many their daily or weekly routine provided little variety for them to include in conversations. Following a period of discussion and consultation with patients and staff the Adventure Based Learning (ABLe) programme was designed, developed and implemented by two patients and two staff within the unit. The aim of the programme was to provide a range of challenging activities which were within the parameters of national legislation for mental health patients. The objectives of the ABLe programme were to; improve confidence and self esteem, develop problem solving and leadership skills, promote team working and social interaction, encourage physical fitness and co-ordination and to provide meaning and structure to the participant's routine, resulting in gaining a sense of achievement overall.

Patients and staff made chutneys and relishes from vegetables that are grown and maintained by patients on site and sold these in order to raise money to cover the costs of activities included in the ABLe programme. A sausage sizzle was also held and patients developed a poster to advertise the event and participated in assisting staff on the day. Once adequate funds were raised, staff and patients participated in a range of activities over a month. Activities included; a first-aid course, ice skating, abseiling, walking the Bridal Path and other team-based initiatives.

Both patient and staff evaluations were conducted following the ABLe programme and overall feedback received was extremely positive with all of the objectives of the programme being met. The ABLe programme had a positive impact on the participant's relationships with their family/whanau as participants were able to communicate about what activities they had been undertaking. By providing a range of activities, many of which were of a challenging nature, the participants have been able to develop their self-confidence and esteem and felt a greater sense of empowerment with their treatment. Informal feedback from patients' families/whanau and wider staff groups within the Forensic Service has also been highly supportive of the programme.

Due to the success of the programme it is hoped to repeat it within 18 months following further fundraising. Patients and staff from other areas within the forensic service have also signalled an interest to participate in the course and the possibility of this will be pursued further.

Contact Person: Pam Schofield, Occupational Therapist, Te Whare Mauriora, Hillmorton Hospital

Whānau Ora Assessment Tool

Ngā Ratonga Hauora Māori

For many years it had been evident that services delivered to patients/tūroro in our mainstream hospital systems have often faltered in delivering an effective, culturally appropriate service.

It was clear to staff at Ngā Ratonga Hauora Māori that whilst there was a strategic framework for Māori health in place at the Canterbury District Health Board - Whānau Ora, what was missing was a practical tool that could be used with tūroro (patients) to support them and their whānau (family) during their time in the mainstream hospital system. The team recognised that a tool founded on Whānau Ora values was needed to capture current practice across the team and provide a way to track and monitor the delivery of services to our tūroro.

After a period of thorough research into external tools available the team at Ngā Ratonga Hauora Māori developed the Whānau Ora Assessment Tool. The tool encompasses a wide dimension of factors relating to the inpatient experience of tūroro and their whānau. These factors include: Whakawhanaungatanga (connectedness), Hauoratia (history of patient health), Atua (spirituality), Nekenekehia (moving forward), Aroa (patient understanding), Uia (empowering the patient), Oranga (patient well-being), Ritenga (referrals) and Ahatia (what to do).

Following development of the Whānau Ora Assessment Tool a qualitative focus group methodology was used to assess the tool in a comprehensive manner. This review enabled the tool to be reviewed by a diverse group of participants and several changes to enhance the tool were suggested.

The project team are now reviewing the feedback gained from the focus group sessions and will incorporate this into the updated tool. Once finalised, the project team are also aiming to develop guideline documents to support the use of the Whānau Ora Assessment Tool and complete resource packages to distribute to Ngā Ratonga Hauora Māori team members to use on wards. The project team also wish to prepare a training programme which supports the use of the Whānau Ora Assessment Tool in an inpatient setting. Following the complete rollout of the tool, an analysis will be conducted with patients and staff to gauge the effectiveness of the tool.

With the ultimate aim of the project being to support, encourage, facilitate and enable staff throughout the Canterbury DHB to deliver culturally-appropriate, comprehensive and quality services which would in turn improve the health experiences for Māori patients in the hospital setting.

Contact Person: Tahu Potiki Stirling, Pouārahi Rōpū – Team Leader, Ngā Ratonga Hauora Māori

2009 SYSTEMS IMPROVEMENT ENTRIES

Maternity Outpatient Department Project: The Women's Path

Women's Outpatient Department, Christchurch Women's Hospital

An unpredicted rise in the number of births and the exit of Obstetricians from private sector maternity care led to an increased number of referrals to the Maternity Outpatient Department. Administration staff reported that they struggled to find 30 to 40 additional clinic appointments each month in already overbooked clinics which not only created anxiety for the women but provided little opportunity for continuity of midwifery and medical staff care. It was the identification of these complex and growing issues that led to the motivation to commence the 'Maternity Outpatient Department Project: The Women's Path.'

A thorough examination of current operating systems within the Maternity Outpatient Department at Christchurch Women's Hospital was conducted and the path of women who attend the department was traced. This process identified and directed areas of service delivery which could be improved, removed or redesigned and encouraged multidisciplinary involvement by offering an opportunity for midwives, obstetricians, managers, support staff and users of maternity care to work together to improve the service.

The identification of value-added and non-value-added steps in every part of the woman's journey was a key task that looked at processes that directly impacted on the length of time women spent in the clinics. Any time a woman was kept waiting was considered to be of no value to her as would any duplication of tasks or a return to clinic for elements of care that could have been completed in the community by a woman's Lead Maternity Carer (LMC).

Through the utilisation of the Toyota Production System (TPS) and Lean Thinking problem solving strategies and process mapping, the function and effectiveness of the clinic were redesigned and used to simplify clinic work and make it more logical. Inefficiencies in the women's visit were identified through a patient flow analysis. The patient flow analysis at the clinic level, led to a more integrated approach to service delivery and a more patient-oriented scheduling of services. Changing how the medical staff interviewed the women reduced waiting times and the reorganisation of clinic rooms removed non-value-added steps which improved the overall function and efficiency of the clinic and patient flow through the clinic.

As a result of the project a revised triage system and newly developed triage form has also been introduced and has had a positive impact on ensuring clinic numbers remain manageable. In addition, the need for double appointments was eliminated and pre-induction consultations and urgent referrals are now more easily accommodated within available clinic appointments.

A thorough review of patient information was also conducted and revealed that much of the information available to women was either unsuitable and/or superfluous. Much of the information had been photocopied over many years rather than reordered through the document control process and there were multiple out of date versions available. A systematic and transparent ordering process was implemented to ensure effective document control, sustainability and reduced costs through bulk-buying leaflets together. The roles and responsibilities around reviewing and updating were also implemented.

A long term framework was developed at the conclusion of the Maternity Outpatient Project and continues to guide the way for future service improvement activities.

Contact Person: Susan Taylor, Quality and Patient Safety Facilitator, Quality Department, Christchurch Women's Hospital

Improving Sedation Management of Critically Ill Patients

Medical Physics and Bioengineering and Intensive Care Unit, Christchurch Hospital

The Intensive Care Unit (ICU) is a difficult environment for patients and staff alike. To help patients cope with anxiety and pain many are prescribed a combination of sedative and analgesic drugs and the optimum management of these drugs is important to patients' safety and ultimate recovery. Sedation is achieved by continuously infusing patients with a mixture of sedative and analgesic medication and the rate of infusion adjusted by nursing staff when they judge the patient to need less or more medication.

In 2002, Medical Physics and Bioengineering and ICU developed a device, the Infuse – Rite as a tool to better manage the sedation requirements of ICU patients admitted to Christchurch Hospital. The Infuse – Rite provides a method of controlling sedation and agitation in ICU by automatically adjusting the rate at which drug solution is delivered to mechanically ventilated patients by a general purpose pump, based on the previous four hours of drug history.

This project aimed to sustain and extend the benefits of the original innovation by updating the Infuse – Rite system to accommodate advances in sedation protocols to better manage the clinical demands in ICU. New drugs and drug combinations were required, and the range of strengths expanded. Experience had shown that the original system was too slow in responding to changing patient needs, so a faster response was desired.

After evaluating other alternatives a project was undertaken to specify, build and deploy an upgrade to the Infuse – Rite system. The primary objectives were to update the drug prescriptions available on the system, and to speed up the response of the system. Secondary objectives concerned several usability issues that had been highlighted. Clinical demand dictated that the changes needed to be introduced as soon as possible.

Two months after the project was commenced the upgraded system was reviewed by the senior nursing staff of the ICU, who approved it for deployment. Following this approval an intensive training programme updated the ICU staff on the new system features, and the Infuse – Rites were withdrawn from the unit in batches and upgraded over a one week period.

The success of the project was evaluated by survey of clinical staff and a review of patient data. The staff survey revealed very substantial improvements across of range of measures, with the greatest advances in the primary objectives concerning drug prescription and responsiveness. Review of patient data has confirmed the very high usage this system receives – some 32,000 hours usage since the upgrade. Looking at the detail reveals cases where the new features have been used to better manage patients.

The updated Infuse – Rite system continues to provide Christchurch Hospital with an invaluable tool for managing critically ill patients. The update has extended the original benefits by introducing new drug options and improving the performance of the system.

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Trialling the Choice and Partnership Approach: Right Time, Right Intervention with the Right People

Child and Family Specialty Service, Whakatata House

The Child and Family Specialty Service (CFSS) provides outpatient services to children with mental health disorders and their families. Prior to 2007 there were extensive waiting times both to access the service and to access aspects of the service once the child was in the service. Children and their families often had an open file with the service for more than 12 months which was partly due to the long internal waits but also due to there being no clear shared idea about when they should be discharged. Staff carried big caseloads and staff morale and retention were becoming an issue. The paperwork requirements were seen as cumbersome and irrelevant at times.

In 2007 two Psychiatrists from the UK presented CAPA (Choice and Partnership Approach) to staff from the Child and Adolescent Mental Health Services. CAPA is a service delivery model that seeks to free up patient flow, and to keep the ability to choose and the responsibility for change with the families coming through. Underpinning the approach are the "7 helpful habits of a successful Child and Adolescent Mental Health Service" which are: Handle demand, Extend capacity, Let go of families, Process map and Design, Flow management, Use care bundles and Look after staff".

A team at CFSS decided to trial the approach in a New Zealand setting. Following an 8 month development period all the families presenting between December 2007 and April 2008 were seen using the methods and processes outlined in the CAPA model. This project was an attempt to see the following: What happened for the pilot families and was this different from what previously presenting families had experienced? Were the goals of trialling the new approach achieved (such as reducing waiting times, families having choice and taking responsibility, the paperwork being family-focused and staff referring families to more appropriate clinicians or services)? Did the families, staff and referrers find the new approach acceptable? What were the outcomes for the children?

The results from this pilot group indicated that families accessed the service after a much shorter waiting period (compared to two comparison groups of families that had presented before), there were much shorter internal waits, contact with the service involved much more choice and goals and treatment plans were developed mainly by the family in a partnership model. Outgoing paperwork is all family-friendly. Clinical work has been much more focused and often involved referrals to other clinicians. Satisfaction questionnaires and interviews with the families indicated that they found the approach useful and respectful as did a similar questionnaire to the referrers. The work satisfaction of the team trialling CAPA was compared to that of other staff and found to be better in nearly all areas addressed by the questionnaire completed by staff. Pre and post questionnaires about the children indicated that the families' ratings of problems had moved in the desired direction and the majority of the teacher's ratings had also changed for the better. Additional benefits of the new approach included; greater team cohesion, a big improvement in staff morale and a positive change in attitude towards the families, seemingly bought about by the change of language being used about the families and the new focus on their strengths. The team at CFSS were also able to use the pilot information as it came through to support other teams in Christchurch and across New Zealand to begin trialling this very promising approach to providing mental health services to children and families in a respectful and timely manner.

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The Vascular Surgical Database: Improving Flow in Vascular Surgery

Department of Vascular, Endovascular and Transplant Surgery, Christchurch Hospital

The Department of Vascular, Endovascular and Transplant Surgery at Christchurch Hospital recognised that there was no single comprehensive system which accurately monitored patient outcomes for the unit. In order to support established review processes such as audit and morbidity and mortality meetings a high quality clinical database was designed and implemented to facilitate the tracking of patients and their outcomes through the service.

The database records the flow of necessary information as a patient is managed by the department from referral to post-discharge outpatient follow up visits. The database is used by clinical staff to make sure that patient test requests and results are not "lost in the system", that outcome data is collated and that rapid and clear communication with primary care and other hospital departments is achieved. It therefore provides accurate and thorough clinical data for management and clinicians to monitor the patient journey and provides a robust mechanism in which to support accountability for patient outcomes. Information from the database is also available to the clinical coders to clarify details of admissions and procedures performed by the service.

The accurate and timely monitoring of patients through the complex hospital system safeguards high standards of care for patients with peripheral vascular disease within the Canterbury DHB. The use of the database improves patient safety and service quality as care and outcomes are systematically reviewed against explicit criteria as the system produces a risk adjusted POSSUM score of morbidity and mortality based on the patient's age, test results and other operational information.

To ensure that no additional revenue costs arose from introducing the system, it was necessary that the time involved in inputting data was offset by savings in other administrative tasks. Thus the system was designed to automatically produce operation notes and discharge letters, saving secretarial time previously spent typing which has improved efficiency for the department overall.

The vascular surgical database collects and measures clinical activities and outcomes and uses the analysis of data to monitor and evaluate performance which is compared against standards. The database therefore acts as a stimulus and mechanism in which lessons can be learnt and identifies opportunities for improvement and supports and facilitates a robust peer review process.

The data stored and generated on the vascular database is also used by doctors, nurses and allied health professionals undertaking research projects and thus contributes to and supports continuing professional development within the department.

The database is adaptable and is currently being expanded to collect data on other types of departmental activity such as nurse-led outpatient clinics. It is predicted that the Vascular Surgery database will also become integral to the DHB clinical information system and will also be incorporated into the Canterbury DHB patient electronic record in the future.

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Re-Engineering Clinical Radiology

Radiology Department and Business Development Unit, Christchurch Hospital

The Radiology Department at Christchurch Hospital was experiencing long delays in access for imaging services for both Outpatients and Inpatients. The impact of such delays was felt widely across the hospital in terms of delays to treatment and excess utilisation of Inpatient beds.

A joint initiative between the Radiology Department and the Business Development Unit commenced in March 2007 with the aim of adopting the principles of lean and constraint theory in order to reduce patient wait time from referral to report in Radiology services. The project encompassed diagnostic imaging services at Christchurch Hospital and Christchurch Women's Hospital.

The major constraint or "bottleneck" of the system was identified early on as being the Radiologists' reporting capacity. Radiologists were required to complete multiple tasks during reporting sessions and therefore were unable to keep up with reporting demand. Production planning methodology was used to understand the constraint point. Tools were developed to forecast demand for the service, and to accurately plan workload which have assisted the department in forward-planning of services.

To optimise Radiologists' reporting capacity a number of initiatives were introduced to minimise unnecessary disruption to reporting sessions. These initiatives include: the development of 'Where's Wally?' - an intranet-based Radiologist locator making it easy to locate Radiologists without interrupting others; a staff member was nominated as Radiologist Assistant to act as a single point of contact for Radiologists; reporting workstations were standardised; protocols and processes around imaging were simplified and standardised; a report hotline was introduced to manage report enquiries; and protected reporting time was ring-fenced daily to clear overnight/on-call cases.

The primary outcome of the project has been to create visibility of the service in terms of demand patterns, and the resources required to service this demand (equipment and people). In doing so, Radiology can better plan services, to ensure the timely imaging and provision of reports for Outpatients, without compromising the acute aspect of the department.

Report turnaround times have reduced significantly as a result. Reporting of Emergency and Inpatients within one hour has increased from around 15% to around 50%, and performance against this target continues to improve. The benefits of this can be felt throughout the wider hospital with a timely report facilitating prompt diagnosis and treatment of patients and therefore reduced length of stay, contributing to the reduced incident of bed gridlock in Christchurch hospital.

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